

Name: _____

Date: _____

A2&T: Review

Directions: Show all work in order to receive full credit. A correct answer with no supporting work will only receive one credit. Be sure to show all appropriate formulas and formula substitutions as part of your work.

1. If the sum of the roots of the equation $2x^2 - 5x - 3 = 0$ is added to the product of the roots, what is the result?

2. Factor the expression $12t^8 - 75t^4$ completely.

3. Express $\frac{\sqrt{108x^5y^8}}{\sqrt{6xy^5}}$ in simplest radical form.

4. Simplify completely: $i^{27} + i^{34}$

5. Simplify completely: $2\sqrt[3]{16a^3b^4c^5}$

6. What is the solution set for the equation $\sqrt{x+3} = 3-x$?

7. What is the difference when i^{15} is subtracted from i^{13} ?

8. Express $5\sqrt{3x^3} - 2\sqrt{27x^3}$ in simplest radical form.

9. Write a quadratic equation whose roots are $5+i\sqrt{2}$ and $5-i\sqrt{2}$.

10. Perform the operation and express the answer in simplest form: $\frac{1}{3} + \frac{2}{3x+3} = \frac{4}{x+1}$